# MEDICARE MENTAL HEALTH DEMONSTRATION

# FIRST YEAR EVALUATION SUMMARY REPORT

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## FIRST YEAR EVALUATION SUMMARY REPORT

Submitted to:

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# MMHD EVALUATION SUMMARY

This document describes the evaluation of the Medicare Mental Health Demonstration (MMHD) through its first year, highlighting several facets of the demonstration population--both providers and Medicare beneficiaries--prior to the demonstration and during the early months of its implementation. It includes the documentation of criteria for and selection of comparison facilities and reports plans for a national survey of ambulatory mental health providers. The summary is keyed to the chronology of the evaluation, focusing mainly on the first year of operation and is structured as follows: (1) overview of background, design, process, and status of the evaluation, including limitations of the evaluation and database; (2) overview of the implementation assessment; (3) overview of changes in beneficiary characteristics since the start of the demonstration; (4) overview of changes in beneficiary utilization; (5) overview of changes in facility administration; (6) overview of the national survey; and (7) overview of the comparison group selection process.

## 1. OVERVIEW OF BACKGROUND, DESIGN, PROCESS, AND STATUS OF THE EVALUATION

### (1) Background

Part B of Medicare (Supplementary Medical Insurance) was enacted to provide medical insurance protection for covered services to persons 65 and over and certain disabled persons who elect this coverage. As such, Part B is designed as medical insurance protection for Medicare beneficiaries who are not full-time inpatients. Like any other health insurance program, Part B has a specific set of limitations on the benefits covered such as what services are covered, who is deemed qualified to render covered services, an annual deductible, and, in general, a 20 percent coinsurance whereby the Medicare beneficiary is expected to pay this portion of the "reasonable charge" for covered services.

The coverage of mental health treatment is limited, however, beyond that described above:

- The maximum amount of reimbursement for services provided by a psychiatrist or nonpsychiatric physician providing for the treatment of a mental, psychoneurotic, or personality disorder is $250 per calendar year. Medicare only recognizes a maximum of 62.5 percent of $500 of such charges, or $312.50, and will reimburse 80 percent of this amount--thus, $250. Consequently, the effective coinsurance rate is 50 percent for the first $500 of charges, and 100 percent thereafter.

- The reimbursement limit applies to expenses incurred for the "physicians' services," with no distinction made between services rendered by psychiatrists and other physicians. In addition, the reimbursement limit does not apply to the diagnostic services of a physician.

- Expenses incurred for services rendered "incident to" physicians' services are allowable if the services have been rendered by employees of the physician, under the "direct personal supervision of the physician." Direct personal supervision does not mean that the physician must be present in the same room as the employee. It does mean, however, that the physician must be present in the facility and immediately available to provide assistance and direction throughout the performance of the service. In addition, the physician bills Medicare for the services provided and is, therefore, the provider of record, rather than his or her employee provider.

  The "incident to" services must also be "usual and common" to the physician's practice. A determination of this requirement, particularly with respect to coverage of the services, is made by the cognizant Medicare carrier in adjudicating each claim. Interpretation likely differs widely among the entire group of Medicare carriers.

- Services rendered by the physician's employees outside the office setting are covered only if the physician is present.

- Diagnostic services performed by a qualified "psychologist practicing independent" of an institution, agency, or physician's office are covered as "other diagnostic tests," if the physician "orders" such tests. To qualify, a psychologist must meet educational and practice standards established by Medicare. It should be noted that such diagnostic services do not count against the maximum reimbursement limitation and that treatment services rendered by qualified, independently practicing psychologists are not covered.

Little is known about the utilization of even these limited benefits by Medicare beneficiaries. Specifically, it is not known how much was incurred for treatment rendered by private practicing physicians and psychologists versus organized ambulatory mental health delivery settings, e.g., community mental health centers, ambulatory clinics, and partial hospitalization programs. What is conceded generally, however, is that Medicare restrictions and complexities contribute to low utilization of outpatient services offered at these types of organized ambulatory settings by Medicare beneficiaries.

(2) Design

The Medicare Mental Health Demonstration is a collaborative effort of a number of organizational entities aimed at reducing these restrictions and complexities on an experimental basis. The overall project is represented by:

- Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (OS/ASPE) has overall responsibility for coordination of the demonstration and evaluation, both technically and fiscally.

- Health Care Financing Administration, Office of Research and Demonstrations (HCFA/ORD) has shared responsibility for the development and implementation of the demonstration and its evaluation.

- Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) has shared responsibility with HCFA/ORD for the development and implementation of the demonstration.

- HCFA, Office of Direct Reimbursement (HCFA/ODR) has responsibility as the fiscal intermediary for the demonstration, i.e., ODR will reimburse the demonstration sites.

- Executive Resource Associates, Inc., has responsibility for developing and carrying out the protocol for the demonstration.

- Macro Systems, Inc., has responsibility for evaluation of the demonstration.

In addition, a Project Management Team, composed of OS/ASPE, HCFA, and ADAMHA representatives, has responsibility for setting the major policy parameters for the demonstration.

Forty-five sites were selected for participation in the demonstration: 15 community mental health centers (CMHCs), 15 ambulatory mental health clinics (AMHCs), and 15 partial hospitalization programs. In the selection of these sites, the following criteria were used:

- The site could not be owned or operated by a hospital.

- Community mental health centers had to be federally supported, providing at least the five initial services required by Public Law 94-63.

- The other two categories of programs (ambulatory clinics and partial hospitalization programs) had to meet the site physician supervision standards of the Rural Health Clinic Services Act (Public Law 95-210).

- The program had to be licensed by the State, if licensing were required.

- The partial hospitalization programs could not have an ambulatory treatment component and, conversely, the ambulatory clinics could not have a partial hospitalization component.

- All sites had to serve a high percentage of elderly compared to other such sites constituting the universe of programs in each category.

As such, the sites participating in the demonstration are not representative of the universe of ambulatory mental health treatment programs from which the sites were selected. The selection was, rather, purposive, and the sample is best described as such.

Each of the sites are being reimbursed for the cost of all MMHD covered services on the basis of "reasonable cost," subject to retrospective adjustment. The cost of services rendered over a 24-month period, from the time reimbursement is initiated, will constitute the duration of the demonstration.

The parameters of the demonstration depart from existing Part B provisions as follows:

- Types Of Reimbursement--Under the demonstration, reimbursement is on a cost-related basis as opposed to the current fee-for-service or charge basis.

- Deductible--Under the demonstration, the annual amount per beneficiary has been waived.

- Coinsurance--Under the demonstration, participating sites are being reimbursed for 80 percent of their "reasonable costs," as opposed to the current coinsurance of 50 percent of "reasonable charges."

- Reimbursement Limit--Under the demonstration, one-half of the CMHCs and AMHCs have a reimbursement limit of $750 per beneficiary per year as opposed to the current $250 limit. The other half have no limit as will the partial hospitalization programs and partial hospitalization components of CMHCs.

- Physician Supervision--Covered services must be furnished by or as an integral part and under the direct personal supervision of a qualified mental health professional (QMHP) or non-psychiatric physician (NPP). In addition, there must be an arrangement that provides for at least one on-site visit by a psychiatrist every two weeks. This departs from the existing unilateral reliance on physician supervision.

- Clinical Record Keeping--Individual clinical records must be maintained on each beneficiary, including a plan of treatment, progress notes, discharge summary, and drug use profile--in conformance with standards set forth under the demonstration. Existing Part B provisions have no such requirements.

- Quality Assurance--Each participating site must have a utilization review plan in effect. Existing Part B provisions have no such requirement.

- Covered Services--With certain exceptions, covered services must be provided in and by a participating site and must be reasonable and necessary to the diagnosis or treatment of a mental, psychoneurotic, or personality disorder.

The QMHPs referred above are defined by the following standards in addition to any licensing requirements that may be imposed by a State:

- Psychiatrist--A physician who has received at least three years of advanced psychiatric residency training in a program approved by the Residency Review Committee for Psychiatry and Neurology of the American Board of Psychiatry and Neurology and the American Medical Association, or who is certified in psychiatry by the American Board of Psychiatry and Neurology.

- Psychologist--An individual licensed or certified by the State in which he/she works for the independent practice of psychology or eligible for such inclusion by virtue of having earned a doctoral degree in psychology from a regionally accredited educational institution and having two years of supervised clinical experience in health service delivery in an organized care setting, at least one of which is postdoctoral.

- Psychiatric Social Worker--An individual possessing a master's degree from an accredited school of social work and who has at least two years of supervised experience in psychiatric social work after receiving the master's degree.

- Psychiatric Nurse--A registered professional nurse who has a master's degree in psychiatric mental health nursing and at least two years of supervised experience.

All of the above elements are the key ones comprising the MMHD, although there are others further defining its coverage and operations.

The evaluation of the Medicare Mental Health Demonstration has four primary objectives:

- To determine the effects of the demonstration on beneficiary and service utilization

- To determine the effects of the demonstration on the administration and operations of the demonstration sites

- To determine the costs to Medicare for the demonstration

- To determine the costs to Medicare if the demonstration benefit package were applied nationally, including the financial offsets to Medicare that may occur, by constructing prewaiver and postwaiver profiles of inpatient care histories of beneficiaries being treated in the participating facilities

As secondary foci, the evaluation will examine exogenous variables potentially affecting the emphasis of the primary objectives as well as limited client outcome measures.

The basic structure of the evaluation calls for the collection and analysis of specific information by which to meet the evaluation objectives. Two time periods are relevant to this structure:

- Baseline Period--A two-year period immediately prior to the demonstration's implementation.

- Demonstration Period--The two-year period during which MMHD reimbursement to the sites will occur.

Thus, information relevant to meeting the evaluation objectives are being collected from and analyzed for the demonstration sites for these two time periods.

Because of the lack of randomization in the selection of the demonstration sites and to help ensure the internal validity of the evaluation, comparison sites are being used for control purposes. Partitioning matched demonstration and comparison sites results in the overall design of the evaluation as a $2^3$ factorial nonequivalent control group design, as illustrated in Exhibit 1. In such a design, it is possible to state, with certainty, that any observed effects among the group of demontration sites are indeed attributable to the demonstration.

Also, to address the representativeness of the demonstration sites, a national survey of the universe of ambulatory mental health programs will be mounted. This will help to ensure the external validity of the evaluation and allow for projections of the the cost to Medicare if the waivers were applied nationally.

The conceptual framework for evaluation of the Medicare Mental Health Demonstration has three components:

- Implementation Assessment--To attribute any possible effects to the parameters of the demonstration, it is necessary to know the extent to which these parameters have been implemented and when.

- Process Evaluation--Demonstration sites will have, to a certain degree, flexibility in how the demonstration is operated at each site. This component of the evaluation focuses on the site-specific operation of the demonstration, which will be important in understanding and attributing possible effects.

- Impact Evaluation--The policy questions posed by the MMHD relate most directly to the effects of the demonstration on beneficiary utilization of MMHD services, the effects of the demonstration on the beneficiaries, the costs to Medicare for the demonstration, the effects of the demonstration on the participating sites, and the effects of the demonstration on the quality of care beneficiaries receive--all impact questions. These questions are rank-ordered in terms of their importance to the policy implications of the demonstration and its evaluation.

EXHIBIT 1

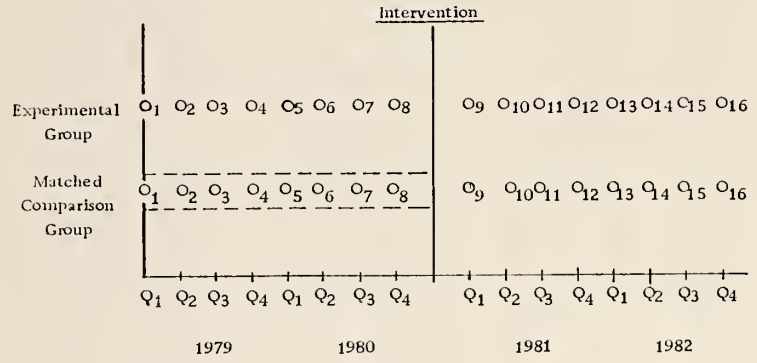
HHS, Office of the Secretary

MMHD EXPERIMENTAL DESIGN

CMHCs AND AMBULATORY CLINICS

For Each Demonstration Site

O ≡ Observation


Intervention
Experimental Group
Matched Comparison Group
O1 O2 O3 O4 O5 O6 O7 O8 O9 O10 O11 O12 O13 O14 O15 O16
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
1979
1980
1981
1982

Multiple Time Series Design

Collapsed Across Sites for a Given Point in Time

Experimental Treatment*

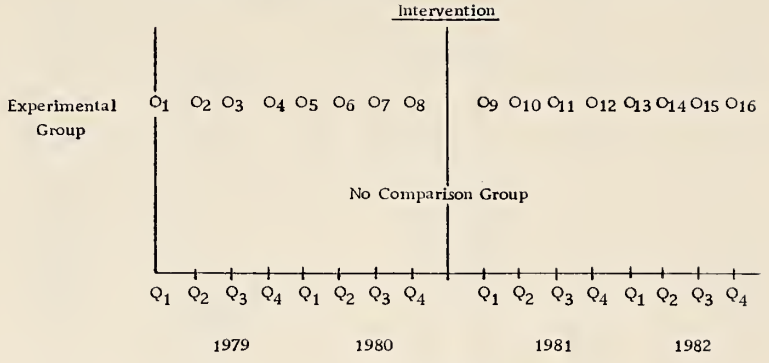
| | $750 Limit | No Limit | |
|---|---|---|---|
| CHMC | 8 pairs | 7 pairs | 15 |
| Ambulatory Clinic | 7 pairs | 8 pairs | 15 |
| | 15 | 15 | 30 |

* One experimental demonstration site with a matched comparison site

PARTIAL HOSPITALIZATION PROGRAMS

For Each Demonstration Site

O ≡ Observation


Intervention
Experimental Group
O1 O2 O3 O4 O5 O6 O7 O8 O9 O10 O11 O12 O13 O14 O15 O16
No Comparison Group
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
1979
1980
1981
1982

Time Series Design

Collapsed Across Sites for a Given Point in Time

Not Applicable

The impact evaluation will focus on six major questions:

- How is the utilization of ambulatory mental health services affected by the demonstration?
- How is the beneficiary population affected by the demonstration?
- How are the costs, charges, and reimbursements for ambulatory mental health services affected by the demonstration?
- How are the costs to Medicare for mental health treatment affected by the demonstration?
- How are the characteristics of participating sites affected by the demonstration?
- Is the quality of care affected by the demonstration? If so, how?

The utilization and cost questions are designed to facilitate examining whether the coverage of ambulatory mental health benefits under the demonstration offers compensatory savings to the Medicare program by reducing utilization and costs of inpatient benefits.

The evaluation is designed so as to address each of the impact questions posed above. Conceptually, this will be done through collection of data relevant to each question and the analysis of such data as follows:

- Baseline and demonstration period analysis on the demonstration sites
- Baseline period analysis between the demonstration and comparison sites
- Demonstration period analysis between the demonstration and comparison sites
- Baseline and demonstration period analysis on the comparison sites

Data from HCFA, both ORD and ODR, and Executive Resource Associates, and evaluation data collected during visits to the demonstration sites are being used to prepare site-specific case studies relevant to the implementation assessment and process evaluation components of the evaluation. In general, data for the impact evaluation emanates from three sources:

- HCFA Files--Demonstration sites make claims to ODR on a continuous basis throughout the demonstration period. ODR provides tapes of all such transactions. In addition, HCFA reports on beneficiaries residing in the demonstration sites' service areas will be accessed.

- On-Site Visits--Semiannual visits to each demonstration site are being made to collect beneficiary-specific demographic, service, reimbursement, and outcome data and programmatic data. Such data are being obtained through record abstracts and interviews.

- Self-Reports--Comparison sites will report semiannually by mail on beneficiary-specific and programmatic data elements.

(3) Process

As indicated, several different sources are being tapped to obtain information of a beneficiary-specific nature. This summary contains analyses based on a partial database of information derived from files of 38 facilities and over 4,000 beneficiaries. The database is expected to grow generally as additional facilities and Medicare beneficiaries are identified and added to it.

(4) Limitations

The demonstration and evaluation designs are subject to several limitations:

- Random Selection--The demonstration sites were not selected at random, which affects the generalizability of the demonstration results. Although use of the comparison group and a national survey will enhance generalizability, the lack of randomization may have some impact on the effects observable through the demonstration.

- Beginning The Demonstration At Other Than The Start Of The Calendar Year--The demonstration started during the middle of the calendar year. Because the $750 reimbursement limit applies to the entire calendar year and because the first year of the demonstration will be less than a full calendar year, some beneficiaries may not reach the reimbursement limit who might normally do so during a full 12-month period. This, therefore, will affect the utilization and cost elements for the first year of the demonstration--a fact that cannot be completely controlled by any statistical analysis. This limitation is heightened by the fact that replacement sites will have participated for a much shorter period than the others during the first calendar year of the demonstration.

- Beginning The Demonstration At Different Times In Different Sites--Some sites already had the capability to fulfill the MMHD requirements; others took early steps to do so; and still others did not. For this reason, several sites have been delayed somewhat, in comparison to other sites, in implementing the demonstration. The implementation assessment and process evaluation components of the evaluation will document this evolutionary implementation. Because this occurred, it means that there may not be total comparability in the database across sites participating in the demonstration.

- Beneficiary Population--The focus of the evaluation is on those beneficiaries who use MMHD covered services at the demonstration sites. To make projections of future Medicare costs if the waivers were applied nationally, a secondary focus will be on beneficiaries residing in each site's service area. Estimates of the proportion of the beneficiaries residing in the service areas served by demonstration sites (estimates of consumer demand) will only be approximations and not precise estimates.

- Data Quantity And Quality--The ability to address all evaluation questions will depend upon the quantity and quality of the data collected. While provisions have been made in the evaluation to maximize data quantity and quality, there is still the possibility that gaps may occur. Should this occur, some questions may not be fully answerable.

The baseline database reported on herein is also subject to limitations, particularly with respect to generalizability. As noted, the database represents only 38 facilities and some 4,000 beneficiaries. Four more facilities and some unknown number of beneficiaries will be added to it in the future. The characteristics and service histories of these additional beneficiaries may be quite different from what exists in the database currently. Even for the facilities represented in the database, there are some incomplete records due to unidentified beneficiaries, non-releasable information, and unavailable data. Future analyses will attempt to adjust for these limitations.

## 2. OVERVIEW OF IMPLEMENTATION ASSESSMENT

Implementation information is critical in making certain that the MMHD is put into operation according to the design of the demonstration. Unless it is known that the demonstration is or is not operating according to its design, information on why particular outcomes are observed becomes extremely limited. Furthermore, until the demonstration has been implemented and the "treatment" (in an experimental design sense) is believed to be in place, there exists little reason to evaluate impacts of the demonstration.

From the perspective of implementation assessment, there are four important events in time being examined:

- Date waivers are approved
- Beginning reimbursement date
- Date facility meets all demonstration requirements
- Effective facility implementation date

The demonstration time period was originally planned for January 1, 1981 to December 31, 1982. In November 1980, the 45 candidate facilities were invited to attend a two-day orientation and training conference (four such conferences were held: one in Washington, D.C., two in Dallas, Texas, and one in Atlanta, Georgia). The focus of each conference was on the orientation of the programs to the requirements of the demonstration, with specific training on

the completion of cost reports and bills. The beginning point of the demonstration was changed from January 1, 1981 to April 15, 1981 due to a delay in obtaining approval of the waivers necessary to commence the project. The facilities were notified of the delay and their participation was formally requested in March 1981.

Not all 45 facilities originally solicited chose to participate. Shortly before the training session two community mental health centers declined participation and afterwards three community mental health centers, three ambulatory clinics, and two partial hospitalization facilities declined participation. The community mental health centers declining participation before training were replaced immediately by other community mental health centers, which participated in the training as scheduled.

Of those declining participation after the training session, all but one of the ambulatory clinics declined immediately and were replaced. The one ambulatory clinic declined after a prolonged period of decision-making and a policy decision was made not to replace this facility. Replacement was made using criteria identical to those used in the selection of original sites. All of the replacement facilities were trained on-site by HCFA/ODR. Subsequent to those replacements, one original partial hospitalization facility dropped out and one of the replacement CMHCs declined to participate, bringing the total participants to 42; 14 CMHCs, 14 AMHCs, and 14 partial hospitalization programs.

The 12 facilities declining participation did so for a variety of reasons. The most prevalent reason stated was that participation in the demonstration would affect other funding sources. This is common in those States whose State Mental Health Agencies fund community-based programs on a "deficit financing" basis. That is, for each dollar earned through the demonstration, a facility would lose one dollar in State grant-in-aid support. Other reasons cited included that the demonstration requirements would necessitate too many changes in the facility's operations, the facility could not feasibly meet some of the requirements, and the cost reporting and billing requirements were too complex.

Because of the relative lateness of securing the participation of the replacement facilities, a policy decision was made that these facilities would receive reimbursement under the demonstration from October 1, 1981 to April 14, 1983--five and one-half months less than the other facilities. Subsequent evaluation and analysis activities will take into account this reduced time frame for participation.

Exhibit 2, following this page, shows the date each facility executed its Memorandum of Agreement (MOA), the contractual agreement of participation, and the month for which each facility received its first reimbursement under the demonstration. The exhibit shows the evolutionary nature of the demonstration in that not all facilities have availed themselves of the full time frame for which reimbursement was possible under the demonstration. Three community mental health centers, two ambulatory mental health clinics, and one partial hospitalization facilities--a total of six facilities--received no reimbursement under the demonstration through the month of March 1982. In addition, two community mental health centers, three ambulatory mental health clinics, and one partial

EXHIBIT 2(1)

HHS, Office of the Secretary

DEMONSTRATION FACILITY IMPLEMENTATION

| Facility | Date Facility Signed Memorandum of Agreement | First Month For Which Facility Received MMHD Reimbursement |
|---|---|---|
| **Community Mental Health Centers** | | |
| 01 | 3/25/81 | April |
| 02 | 3/25/81 | April |
| 03 | 4/1/81 | No reimbursement to date |
| 04 | 3/31/81 | April |
| 05 | 3/24/81 | April |
| 06 | 3/26/81 | April |
| 07 | 4/21/81 | April |
| 08 | 3/23/81 | April |
| 09 | 4/1/81 | April |
| 10 | 3/23/81 | April |
| 11 | 6/9/81 | August |
| 12 | 5/5/81 | January 1982 |
| 13R | 7/28/81 | No reimbursement to date |
| 14R | 7/31/81 | No reimbursement to date |
| 15R | | Declined participation |
| **Ambulatory Mental Health Clinics** | | |
| 16 | 4/30/81 | October |
| 17 | 4/27/81 | May |
| 18 | 4/13/81 | April |
| 19 | 5/8/81 | No reimbursement to date |
| 20 | 4/21/81 | July |
| 21 | 4/29/81 | No reimbursement to date |
| 22 | 3/26/81 | Dropped out |
| 23 | 3/26/81 | April |
| 24 | 3/25/81 | April |
| 25 | 4/13/81 | April |
| 26 | 3/23/81 | April |
| 27 | 4/22/81 | April |
| 28 | 4/7/81 | April |
| 29R | 8/13/81 | December |
| 30R | 7/23/81 | February 1982 |
| **Partial Hospitalization Facilities** | | |
| 31 | 3/30/81 | April |
| 32 | 4/1/81 | April |
| 33 | 4/1/81 | April |
| 34 | 5/4/81 | Dropped out |

| Facility | Date Facility Signed Memorandum of Agreement | First Month For Which Facility Received MMHD Reimbursement |
|---|---|---|
| **Partial Hospitalization Clinics (continued)** | | |
| 35 | 4/15/81 | No reimbursement to date |
| 36 | 3/27/81 | April |
| 37 | 3/24/81 | April |
| 38 | 3/26/81 | April |
| 39 | 3/31/81 | April |
| 40 | 3/23/81 | April |
| 41 | 3/25/81 | April |
| 42 | 3/21/81 | April |
| 43 | 4/15/81 | October |
| 44R | 8/19/81 | October |
| 45R | 7/31/81 | March 1982 |

R = Replacement Site

hospitalization facility--a total of six facilities--began reimbursement under the demonstration at time frames for less than which they were eligible. Thus, for one-third of the facilities participating in the demonstration, the "effective" demonstration period is less than the two years authorized by the waivers. This will be taken into account in subsequent evaluation and data analysis activities.

It should be noted that in Exhibit 2, participating facilities are not identified by name--a convention to be followed in all analyses and reports. From an evaluation perspective, analyses will focus only on the aggregate experience of the participating facilities. Although individual facility experiences are important in developing and clarifying the aggregate results, the identity of individual facilities is not important in reporting the demonstration results. Consequently, facilities will be identified only by a number--the same number to be used for a particular facility in all subsequent analyses and reports.

## 3. OVERVIEW OF CHANGES IN BENEFICIARY CHARACTERISTICS

The characteristics of a "typical" Medicare beneficiary who was admitted to a demonstration facility during the baseline period are shown in Exhibit 3. Unless otherwise indicated, these data represent "modal" values; that is, the most frequently occurring values, of each characteristic described. For example, the largest percentage of all beneficiaries were admitted during 1980, so 1980 is reported as the modal value.

Contrary to what might be expected from the composition of the Medicare population nationwide, a little less than one-half of the beneficiaries served during the baseline period were 65 years of age or older--the median age was 63 years of age. This means that many of the beneficiaries were eligible for Medicare due to disabling conditions, as opposed to the vast majority of the general Medicare population, who are eligible for Medicare by virtue of age. By and large, the partial hospitalization programs tended to serve a younger, disabled population.

Three-fourths of all beneficiaries were white, whereas blacks constituted approximately one-fifth of the baseline beneficiary population. Not unlike most mental health treatment settings, a somewhat higher percentage of the baseline beneficiary caseload was female (54 percent).

Only one-fourth of the beneficiaries were married; most of the others were single/never married (one-third) or widowed (less than one-fourth). The majority (64 percent) of beneficiaries treated at the partial hospitalization programs were single/never married.

The largest number of referrals to treatment at the demonstration facilities were self-referrals (22 percent), and slightly over one-third of all referrals were either self, family, or friends. State mental hospitals (15 percent) and social service agencies (11 percent) were also prevalent referral sources. The referral patterns for the partial hospitalization programs were distinct, once again, reflecting the disabled nature of the population. The most common sources of referral to the partial hospitalization programs were State mental hospitals (23 percent) and other mental health centers/clinics (17 percent), with self, family, or friends constituting less than one-fifth of the referrals.

EXHIBIT 3

HHS, Office of the Secretary

CHARACTERISTICS OF THE TYPICAL BASELINE MEDICARE BENEFICIARY

| Beneficiary Characteristics | All Facilities | CHMCs | Ambulatory Clinics | Partial Hospitalization Programs |
|---|---|---|---|---|
| Earliest Intake Date | 1980 | 1980 | 1980 | 1980 |
| Most Recent Intake Date | 1981 | 1981 | 1980 | 1981 |
| Median Age | 63 | 64 | 66 | 48 |
| Race | White | White | White | White |
| Sex | Female | Female | Female | Male |
| Marital Status | Single | Single | Widowed | Single |
| Referral Sources | Self<br>State Mental Hospital | Self<br>Family/Friends | State Mental Hospital<br>Self | State Mental Hospital<br>Other Mental Health Center/Clinic |
| Living Arrangement | Own Home/Apartment | Own Home/Apartment | Own Home/Apartment | Congregate Living Arrangement |
| Income Sources | Social Security*<br>Public Assistance | Social Security<br>Public Assistance | Social Security<br>Public Assistance | Social Security<br>Public Assistance |
| Mean Total Monthly Income | $414 | $415 | $380 | N/A |
| Potential Payor Sources | Medicaid<br>Self-Pay<br>Title XX | Title XX<br>Self-Pay<br>Medicaid | Medicaid<br>Self-Pay<br>Private Insurance | Title XX<br>Medicaid<br>Other |
| Self-Pay Payment Level | Less than 11% of Charges | Less than 11% of Charges | Less than 11% of Charges | N/A |
| Primary Diagnosis | Schizophrenic Disorder | Schizophrenic Disorder | Schizophrenic Disorder | Schizophrenic Disorder |
| Previous Mental Health Treatment (Other than Demonstration Facility) | State Mental Hospital<br>None | State Mental Hospital<br>None | State Mental Hospital<br>None | State Mental Hospital<br>Other Mental Health Center/Clinic |

* Including Supplemental Security and Railroad Retirement.

The largest percentage of the beneficiaries lived in their own home or apartment (44 percent) or in that of a relative(s) (19 percent). A substantial portion also lived in some type of congregate living arrangement (15 percent) or in a long-term care facility (15 percent). The largest percentage of the beneficiaries in the partial hospitalization programs resided in some type of congregate living arrangement (41 percent), reflecting State deinstitutionalization efforts.

Aside from Medicare, there was an average of 1.4 payor sources per beneficiary. Medicaid was the most prevalent payor source overall (45 percent); followed by self-pay (42 percent) and Title XX (38 percent).

Overall, the demonstration sites' Medicare beneficiaries served exhibited severe mental disorders, evidenced by 36 percent of the population diagnosed as having some schizophrenic disorder. However, a higher proportion of severely ill beneficiaries were served in the partial hospitalization programs (59 percent) and the CMHCs (39 percent) than in the ambulatory clinics (25 percent). Conversely, the beneficiaries served by the clinics showed more moderate forms of mental disorders.

Prior to entering treatment at the demonstration facilities, almost one-half (46 percent) of all baseline beneficiaries had previous mental health treatment in a State mental hospital. Another 27 percent had previous treatment in either a county mental hospital, VA hospital, or general hospital psychiatric unit. This has significant implications for potential offsets of the cost of institutionalization by ambulatory mental health programs in general and the MMHD in particular. If the ambulatory mental health programs in fact substitute for institutionalized mental health treatment for the "at-risk" population, it is possible that, overall, public dollars are being saved.

Data collected from 38 facilities involving 608 Medicare beneficiaries newly admitted to the facilities in the demonstration period indicate some changes in the distributions of beneficiary characteristics. Some of these changes, if they hold upon the expansion of the database, will represent important effects of the demonstration on the beneficiary population served. However, the reader is once again cautioned about the preliminary nature of these data. The following changes in these distributions from the baseline period to the demonstration period are of most interest:

- There was a substantially greater proportion of elderly beneficiaries admitted by demonstration facilities in the demonstration period than during the baseline period (63 percent, 65 and older versus 48 percent).

- There was a slightly greater proportion of white beneficiaries admitted by demonstration facilities in the demonstration period than during the baseline period (86 percent versus 77 percent).

- There was a greater proportion of married (33 percent versus 26 percent) or widowed (30 percent versus 22 percent) admitted by demonstration facilities in the demonstration period than during the baseline period.

- There was a greater proportion of beneficiaries living at home (53 percent versus 44 percent) or living in skilled nursing facilities (13 percent versus 6 percent) admitted by demonstration facilities in the demonstration period than during the baseline period.

- There was a smaller proportion of self-referrals (14 percent to 22 percent) and beneficiaries referred by State mental hospitals (4 percent versus 15 percent), and a greater proportion of beneficiaries referred by nonpsychiatric physicians (16 percent versus 7 percent) and skilled nursing facilities (9 percent versus 3 percent) admitted to demonstration facilities in the demonstration period than in the baseline period.

- There was a slightly smaller proportion of beneficiaries receiving some form of public assistance (7 percent versus 10 percent) admitted to demonstration facilities in the demonstration period than in the baseline period.

- There was a substantially smaller proportion of beneficiaries paying for some portion of their mental health services (22 percent versus 42 percent) and beneficiaries eligible for Title XX (11 percent to 38 percent), and a correspondingly greater proportion eligible for Medicaid (50 percent versus 44 percent) and having private insurance coverage of their mental health services admitted to demonstration facilities in the demonstration period than in the baseline period.

- There was a greater proportion of beneficiaries with a primary diagnosis of adjustment disorder (14 percent to 7 percent) and dementia arisen in the senium and presenium (13 percent to 5 percent) and a smaller proportion with schizophrenic disorder (19 percent to 36 percent) admitted to demonstration facilities in the demonstration period than in the baseline period.

- There was a greater proportion of beneficiaries without previous mental health treatment (54 percent to 27 percent) and a smaller proportion with previous treatment in a State mental hospital (20 percent to 46 percent) admitted to demonstration facilities in the demonstration period than in the baseline period.

Each of the above changes is consistent with an elderly population, signifying a possible increase in emphasis by demonstration facilities on serving the elderly. For example, the increased proportions of beneficiaries referred by and living in skilled nursing facilities reflect service to residents of such facilities, perhaps a new initiative of some facilities in the demonstration. Should these distributions hold upon completion of the database, it might mean that the demonstration is attracting a previously unserved, older population, while continuing to serve the disabled population identified in the baseline period.

## 4. OVERVIEW OF CHANGES IN BENEFICIARY UTILIZATION

A preliminary analysis of beneficiary utilization of demonstration facility services in the baseline period and the demonstration period was performed. The data analyzed to this point were from 35 facilities, representing 2,352 service histories in the baseline period and 1,820 service histories in the demonstration period. Included here are preliminary statistical descriptions of service utilization in terms of the types and amounts of services received for each time period as well as information on the "provider of record" for such services.

In addition to the limitations stated regarding the beneficiary characteristics data, there are several other applicable limitations relating to service utilization data. First, each facility defines services in a unique manner. Although there are similarities in most service descriptions across facilities, there is, in general, not a one-to-one correspondence in service definitions across facilities. Thus, there is not total comparability in reported service utilization across facilities. However, it should be noted that comparability is enhanced under the demonstration because of the conformity to demonstration requirements. Second, documentation requirements for service utilization reporting varied extensively across facilities. However, this is another instance in which the demonstration requirements will enhance across-facility comparability. Third, increases in utilization in the demonstration period, should they be observed, may be due to a true increase in service utilization by the beneficiary population, greater attention to service utilization reporting, or a combination of the two.

The demonstration has provided clear guidelines regarding the personnel providing services to Medicare beneficiaries. Other than the fact that certain services are either covered or not, there are few specifications for the nature of the services being delivered. Essentially, the facilities would be expected to provide services similar to those provided before; the intensity of services and types of services provided, however, might be expected to change, given the various incentives and requirements of the demonstration. Therefore, the effects of the demonstration might best be isolated when viewing the changes in service utilization through the types of personnel providing the services as well as the intensity or amounts of services provided.

Exhibit 4 presents the number of service encounters provided by type of personnel and facility type, for both the baseline and demonstration period. The distributions show wide variations across the types of facilities in the baseline period. For example, psychiatrists provided substantially fewer services in the partial hospitalization programs (4 percent) than across all facility types (16 percent). Moreover, a much higher proportion of services were provided by "other mental health personnel" in the partial hospitalization programs (59 percent compared to 27 percent over all facilities), due not only to a lack of specific reporting but also to a greater reliance on non-QMHPs. "Other nurses" (non-QMHP) provided a higher proportion of the services in the ambulatory clinics (34 percent compared to 15 percent overall) due to seemingly greater provision of medication therapy at these clinics.

EXHIBIT 4

HHS, Office of the Secretary

SERVICE ENCOUNTERS--BY PERSONNEL TYPE, BY FACILITY TYPE--
ALL BENEFICIARIES

| Personnel Type | Baseline Period | | | | Demonstration Period | | | |
|---|---|---|---|---|---|---|---|---|
| | All Facilities | CMHCs | Ambulatory Clinics | Partial Hospitalization Programs | All Facilities | CMHCs | Ambulatory Clinics | Partial Hospitalization Programs |
| Number of Encounters | 52,342 | 23,237 | 15,019 | 14,086 | 18,295 | 5,470 | 6,348 | 6,477 |
| Percent | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Psychiatrist | 16.0 | 17.3 | 25.3 | 3.8 | 16.6 | 25.8 | 13.6 | 11.9 |
| Nonpsychiatric Physician | 0.3 | 0.2 | 0.0 | 0.9 | 0.2 | 0.1 | 0.0 | 0.4 |
| QMHP Psychologist | 2.8 | 3.7 | 1.4 | 2.9 | 5.1 | 3.4 | 3.5 | 8.2 |
| Other Psychologist | 1.8 | 3.0 | 1.5 | 0.1 | 3.5 | 9.6 | 1.6 | 0.1 |
| Psychiatric Nurse | 1.1 | 0.2 | 3.6 | 0.0 | 1.2 | 0.0 | 3.5 | 0.0 |
| Other Nurse | 14.6 | 9.1 | 34.0 | 3.1 | 16.1 | 8.7 | 35.4 | 3.5 |
| Psychiatric Social Worker | 11.0 | 13.6 | 13.9 | 3.6 | 29.6 | 22.9 | 21.1 | 43.5 |
| Other Social Worker | 12.9 | 20.6 | 2.9 | 10.7 | 3.6 | 7.1 | 1.6 | 2.6 |
| Counselor | 9.1 | 12.1 | 5.7 | 7.5 | 4.7 | 3.0 | 9.7 | 1.1 |
| Recreation Therapist | 3.8 | 3.7 | 0.0 | 8.2 | 5.1 | 2.4 | 0.0 | 12.4 |
| Expressive Arts Therapist | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 1.6 | 0.1 |
| Other Mental Health Personnel | 26.5% | 16.4% | 11.7% | 59.2% | 13.7% | 17.0% | 8.4% | 16.1% |

NOTE: Encounters reported for the baseline period cover two years, whereas those reported for the demonstration cover only six months. Additionally, all data reported are preliminary in nature and should be viewed with caution. Generalizations relating to overall service utilization should be avoided until further data editing and validation activities are performed.

Of greatest interest are the changes in provider-specific utilization from the baseline period to the demonstration period. Although there was no change in psychiatrist encounters when aggregating the data across all facilities, there were substantial changes in varying directions across the three facility types. The proportion of psychiatrist encounters increased for CMHCs (17 percent to 26 percent) and partial hospitalization programs (4 percent to 12 percent) and decreased for ambulatory clinics (25 percent to 14 percent). In the aggregate, the proportion of QMHP psychologist encounters increased slightly (3 percent to 5 percent) and psychiatric social worker encounters increased substantially (11 percent to 30 percent). In contrast, the proportion of service encounters reported by other non-QMHP personnel decreased, including "other" social workers (13 percent to 4 percent), counselors (9 percent to 3 percent), and "other" mental health personnel (27 percent to 14 percent). There was an increase, however, in the proportion of encounters provided by recreation therapists (8 percent to 12 percent) in the partial hospitalization programs.

In almost all cases, there were greater increases in the proportion of encounters provided by QMHPs to the elderly than to the younger disabled population. This reflects perhaps the establishment of new programs or expansion of programs, with an emphasis on the elderly, resulting directly from the demonstration.

In an examination of service encounters by service and personnel type in the baseline period, it was found that, with few exceptions, the type of services provided are consistent with the role traditionally prescribed for the various personnel categories. For example, psychiatrists most often provided medication therapy (35 percent of all psychiatrist encounters), psychiatric examinations (29 percent), and individual therapy (27 percent).

There were some noteworthy changes in the types of services provided by various personnel from the baseline to the demonstration period. For example, the proportion of individual therapy encounters provided by psychiatrists increased (27 percent to 37 percent of all encounters provided by psychiatrists). Changes in the QMHP psychologist service encounters included an increase in group therapy (32 percent to 53 percent) and other diagnostic services (3 percent to 18 percent), and a decrease in individual therapy (28 percent to 22 percent) and partial hospitalization (20 percent to 3 percent).

The reported number of service encounters per beneficiary for five one-half year periods was also analyzed. This measure provides some idea of changes in the intensity (amount of services delivered per time period) of service utilization. Periods 1 to 4 represent the baseline period, and period 5 represents the first one-half year of the demonstration period. An examination of the trends over the five time periods provides an early indication of possible demonstration effects. More time periods will be needed, however, to attribute these changes definitively to the demonstration. Below, we highlight the trends of most interest that deserve further analysis as more data become available:

- The intensity of psychiatrist encounters decreased in ambulatory clinics in the demonstration period.

- The intensity of psychiatric social workers encounters increased sharply in partial hospitalization programs in the demonstration period.

- The intensity of counselor encounters decreased sharply in the demonstration period.

- The overall ratio of QMHP encounters to non-QMHP encounters increased sharply from 0.45 to 1.11 due primarily to the increase in encounters delivered by psychiatric social workers.

Should these findings hold upon expansion of the database, they would represent a significant shift in the types of personnel providing services and the types and amount of services these personnel provide in the demonstration facilities. As such, the demonstration facilities would appear to have operationally realigned themselves to capitalize on the expanded reimbursement provisions of the demonstration.

Overall, the preliminary data available show a number of potential impacts of the MMHD on the types of services and personnel providing the services. There appear to be increases in the number and intensity of some of the services, including individual and group therapy, particularly for the elderly and those beneficiaries with no previous mental health treatment. Increases in the utilization of psychiatrists, QMHP psychologists, and psychiatric social workers, with corresponding decreases in the use of non-QMHPs, reflect changes in staffing patterns or responsibilities to meet the MMHD requirements. Increased services provided to the elderly by QMHPs, particularly psychiatric social workers, reflect the establishment of new programs or expansion of existing programs especially targeted to this group of beneficiaries.

## 5. OVERVIEW OF CHANGES IN FACILITY ADMINISTRATION

Changes have also taken place in demonstration facility administration as a result of the MMHD. These changes may be grouped into seven areas: (1) program characteristics, (2) staffing, (3) clinical personnel management, (4) client flow, (5) services, (6) administration and management, and (7) public awareness.

The following is a narrative synopsis of preliminary changes or effects of the demonstration. In general, program characteristics have not changed significantly as a result of the demonstration. Several facets of the demonstration have, however, had a noticeable and significant impact on the staffing patterns of the facilities. One is the requirement for QMHP supervision coupled with the definition of the QMHPs. Another major change attributed to the demonstration is the increase in psychiatrists' time that has been necessary to comply with the requirements that a psychiatrist review and approve all treatment plans and be available on site at least once every two weeks. Staffing changes were also necessary in many facilities to comply with the billing process and cost reporting requirements. QMHP review of treatment plans and the attendant requirements for a written utilization review/quality assurance plan have also required some staffing changes as well as developmental efforts. Generally, the flow of clients through the facilities has not changed, although the relationship with some staff has, as their clinical responsibilities have been altered by the demonstration requirements. The array of services available to Medicare beneficiaries before the MMHD is quite similar to that available during the

demonstration. In terms of overall administration and management responses to the requirements of the demonstration, two areas clearly surfaced as having been impacted. One relates to the general expansion of clinical record-keeping activities and forms and the other with the requirement for billing coinsurance to the beneficiary, which largely has not been done in the past. The development and preparation of cost reports and bills also has had a major impact on facility administration. A wide variety of public awareness vehicles have been utilized by the facilities to reach the public.

The summary of information presented below is based on site visits to 30 facilities through December 1981 and is, in that sense, preliminary.

- Program Characteristics--Very few changes, no significant impact; plans for service delivery and site expansion by several sites.

- Staffing--Thirteen facilities added QMHP clinical staff; five facilities shifted clinical staff to accommodate QMHP supervision requirements; 13 facilities reported adding time for staff or consulting psychiatrists; 8 facilities added administrative, billing, accounting, and/or support staff; 11 facilities indicated that more time was required of their current accounting, billing, and support staff.

- Clinical Personnel Management--Twenty facilities reported that their staff or consulting psychiatrist would review and approve all treatment plans, 15 facilities indicated that QMHPs would be more involved in the development and review of treatment plans, 6 facilities elevated QMHPs to clinical supervisory positions, and 13 facilities reported that utilization review and quality assurance plans had either been established or had changed significantly and become more formal.

- Client Flow--Very few changes, no significant impact.

- Services--Very few changes, no significant impact.

- Administration And Management--Seventeen facilities reported the addition or expansion of treatment plans in the clinical record; 10 facilities reported adding or expanding the drug use profile; 10 facilities added or expanded progress notes; 9 facilities added or expanded the discharge summary; 16 facilities indicated that Medicare beneficiaries would be billed for coinsurance; 12 facilities reported accounting, cost report preparation, and billing as requiring significantly more staff time; and 8 facilities added staff to handle these duties.

- Public Awareness--Fifteen facilities reported notifying referral sources, 11 facilities indicated county organization or community groups had been notified, 5 facilities developed brochures, three facilities made mass mailings, and 3 facilities had been mentioned on radio or in local newspapers.

## 6. OVERVIEW OF THE NATIONAL SURVEY

To help address issues surrounding the representativeness of the demonstration sites (as regards external validity), a national survey of the universe of ambulatory mental health programs will be mounted. The survey universe is estimated to be almost 2,000 facilities. The survey itself will assist in determining the "potential supply" of ambulatory mental health programs and the capacity of each member of the universe to provide and bill for services to Medicare beneficiaries. This survey is particularly important in facilitating the use of the results of the demonstration in projecting the cost to Medicare and any compensatory savings, should they be observed, were the demonstration waivers to be applied nationally. The survey is planned for its field work portion to be conducted in May and June 1982.

## 7. OVERVIEW OF COMPARISON GROUP CRITERIA AND SELECTION

Because of the lack of randomization in the selection of the demonstration sites and issues surrounding the representativeness of the universe of ambulatory mental health programs, a group of comparison sites has been planned for control purposes (as regards internal validity). Thirty comparison facilities were contemplated in the evaluation design. Primary and alternate comparison facilities have been identified and are being solicited to match with demonstration facilities on the bases of:

- State in which facility operates
- Size of program
- Demonstration requirements
- High percent of Medicare beneficiaries served
- Experience with Medicare

Both programmatic and beneficiary-specific data will be collected from the comparison facilities. These data will be used in analyses in an attempt to separate the effects of the demonstration from exogenous factors such as changes in State laws, licensing and certification requirements, budget changes, or other initiatives that may affect the demonstration facilities and that could be confounding the effects of the demonstration.

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